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IN THE

Supreme Court of the United States

OCTOBER TERM, 1962

No. 902.

HEYMAN MANUFACTURING COMPANY,
Petitioner,

v.

HAP CORPORATION,
Respondent.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FIRST CIRCUIT

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Petitioner, HEYMAN MANUFACTURING COMPANY, prays that a writ of certiorari issue to review the judgment of the United States Court of Appeals for the First Circuit, entered in the above-identified case on January 9, 1963.

CITATIONS TO OPINIONS BELOW

The opinion of the District Court for the District of Rhode Island, printed in Appendix A hereto, is reported in 196 F. Supp. 447. The opinion of the Circuit Court of Appeals for the First Circuit, printed in Appendix B hereto, is reported in 135 U. S. P. Q. 285. The opinion of the Circuit Court of Appeals on Petition for Rehearing, printed in Appendix C hereto, is unreported.

JURISDICTION

The judgment of the Circuit Court of Appeals was entered January 9, 1963. Rehearing was denied on January 9, 1963. The jurisdiction of this Court is invoked under 28 U. S. C. Section 1254 (1).

QUESTIONS PRESENTED

A. Whether an appellate court can vacate a trial court's judgment that a patent is valid and is infringed, after reviewing only the issue of infringement and without consideration of the trial court's findings respecting validity.

B. Whether an appellate court can determine the issue of infringement without taking into account those factors germane to validity which also control the scope and construction of the claims alleged to be infringed.

C. Whether an appellate court, in reviewing a trial court's holding that a patent is valid and infringed, can leave open and undecided the question of validity after having reversed on infringement.

RULE INVOLVED

The rule involved is Rule 52(a) of the Federal Rules of Civil Procedure, 28 U. S. C. 52, printed in Appendix D.

STATEMENT

In an action brought on July 31, 1957, in the District Court, Heyman Manufacturing Company (Heyman), the petitioner herein, sued Hap Corporation (Hap), the respondent herein, for infringement of two patents Nos. 2,476,738 and 2,558,052. Hap counterclaimed for infringement of four patents Nos. 2,191,384, 2,191,385, 2,198,966 and 2,278,176. In an opinion dated June 23, 1961 (Appendix A), the District Court held Heyman's patent '738 valid and infringed and its patent '052 not infringed. The District Court held Hap's patents '384 and '385 valid and infringed, but held Hap's patents '966 invalid and '176 not infringed.

Hap, in its appeal to the Circuit Court, sought a review of the holdings of the District Court that Heyman's patent '738 is valid and infringed and that patent '966 is invalid. Heyman, in its cross-appeal, sought a review of the District Court's holding that Hap's patents '384 and '385 were valid.

The Circuit Court in an opinion dated November 20, 1962 (Appendix B) directed entry of judgment vacating Paragraphs 1 and 2 of the judgment of the District Court, while affirming the balance of the judgment from which appeals had been taken.

This petition is concerned solely with the questions raised with respect to the vacating of Paragraphs 1 and 2 and all further discussion will be limited accordingly. Paragraph 1, in the judgment of the District Court, held the '738 patent to be "good and valid as to claims 1 and 2 thereof". Paragraph 2 held that Hap "has infringed claims 1 and 2".

The '738 patent, to which Paragraphs 1 and 2 of the District Court's Judgment are directed, deals with the construction of blades for an electrical plug of the type which is inserted in a wall outlet or receptacle. Each plug has a pair of such blades, the blades being connected by a cord to an electrical appliance, such as a toaster. The inventive feature of the patented blades lies in the means by which the wires of the electrical cord can be attached thereto by a crimping action without the use of solder.

At the trial, Heyman introduced evidence seeking to establish that Hap, in its manufacture of certain blades, identified by specific drawings, infringed the '738 patent. Hap, on the other hand, sought to show that the '738 patent was invalid on the grounds that the structure defined by the claims lacked novelty and was anticipated by the prior art. In support thereof, Hap cited thirteen prior patents, in addition to those made of record by the Examiner in the

file history of the '738 patent in the United States Patent Office. Hap further defended by seeking to establish that the claims in the '738 patent did not cover the blades manufactured by it, and hence were not infringed.

Heyman, on December 11, 1962, petitioned the Circuit Court for a rehearing of that portion of the opinion directing entry of judgment vacating Paragraphs 1 and 2 of the judgment of the District Court holding the '738 patent valid and infringed.

This petition was denied by the Circuit Court's opinion of January 9, 1963 (Appendix C). In its denial, the Circuit Court explained that by vacating the Judgment on validity it was not holding the patent valid or invalid but that it left this matter open.

REASONS FOR GRANTING THE WRIT

POINT I

INFRINGEMENT CANNOT BE DETERMINED WITHOUT CONSIDERATION OF FACTORS INVOLVED IN VALIDITY.

The basic problem presented by this case turns on the distinctions between patent validity and infringement.

Assuming formal compliance with statutory requirements, the question of validity reduces itself to a consideration of whether a difference exists between the invention patented and what was known before, as evidenced by the prior art, and whether this difference has sufficient novelty to rise to the level of patentability. Validity is an absolute rather than a relative quality, and a valid patent granted on a refinement over an existing idea is as valid as a patent on a major innovation.

Infringement, on the other hand, deals with the question of whether a patent claim by its terms covers an accused

device or process. Before resolving this issue, it is necessary to weigh the relative importance of the invention, for as this Court has pointed out in *Eibel Co. v. Paper Co.*, 261 U. S. 45, in administering the patent law one "first looks in the art to find what the real merit of the alleged discovery or invention is and whether it has advanced the art substantially." Hence, with a valid patent on a refinement, the claims generally are narrowly construed, whereas a major innovation or a pioneer invention invites a more liberal construction. *Graver Tank & Mfg. Co.* v. *Linde Air Products Co.*, 70 S. Ct. 854.

If, therefore, in taking up the question of infringement, the prior patents must first be examined to determine the extent to which the art has been advanced, this inevitably leads to a finding which may be controlling in the issue of validity. Despite this obvious over-lapping of issues, courts have tended to isolate or compartmentalize issues of infringement and validity.

Thus, in the present case, where the trial court held a patent valid and infringed, the appellate court reviewed the question of infringement without first considering the prior art. It found no occasion to review the prior art cited in the issue of validity, for the Court elected to pass over this issue. It did so on the authority of *Altvater* v. *Freeman*, 1943, 319 U.S. 359,363, where this Court stated that,

> "To hold a patent valid if it is not infringed is to decide a hypothetical case."

This Court's statement in *Altvater* v. *Freeman* appears to be in conflict with its holding in *Eibel Co.* v. *Paper Co.* and in other cases to the same effect. If followed literally, this statement leads, as in the present case, to an inadequate review of the issue of infringement and to an interpretation of patent claims which fails to take into account the prior

art underlying validity. In the points to follow, the serious private and public consequences of this approach will be demonstrated.

Moreover, the uncritical application of the Altvater doctrine results, as in the present case, to a setting aside of a trial court's adjudication on validity, not on the conviction that a clearly erroneous holding had been made, but for the express purpose of leaving the issue of validity open and undecided, and as if it had never been adjudicated, thereby defeating the function of the trial court.

POINT II

A REVIEW COURT MUST GIVE DUE WEIGHT TO THE TRIAL COURT'S FINDINGS ON INFRINGEMENT.

On the question of infringement, the Circuit Court's opinion is grounded on an independent examination of the evidence in the record and is without regard to the findings of fact of the trial court. The Circuit Court's justification for this action is expressed as follows:

> "With this background we turn to the question of infringement. *On this the district court gives us no assistance.* After quoting both claims in full, and reciting Heyman's commercial success, the court simply states that said patent '738 is valid . . . [that the] credible evidence satisfied me that the plaintiff's blades are made in accordance with the disclosures of said patent . . . [and that because Hap used in its advertising a copy of a drawing of the plaintiff's product] [t]he conclusion is inescapable that the defendant has deliberately infringed the plaintiff's patent '738 . . . . The court did not analyze the claims, or the differences between them. Nor did it resolve any of the conflicts in the testimony, *or make findings of fact in accordance with Fed. R. Civ. P. 52(a). In this posture we have two alternatives:*

> *either to remand the action for findings or, if we determine that the evidence viewed most favorably to Heyman would not warrant a finding of infringement, to dismiss this portion of the complaint.*" (p. 27a) (Emphasis added)

The Circuit Court chose not to remand but to proceed on the basis of its own analysis of the claims. It then concluded that the claims were not infringed.

Though the trial court did not attach separate findings of fact and conclusions of law to its opinion, such findings and conclusions are not wanting. The findings of fact respecting infringement are incorporated in the body of the opinion, and read as follows:

> "It further appears that the defendant, in late 1951, after several attempts to produce a satisfactory solderless contact blade, began to manufacture and sell a crimped blade indistinguishable from the patented product. That the defendant appreciated this is shown by its admitted use in its sales catalogue, describing its products, of a copy of a drawing of the plaintiff's used by the latter in advertising its blades. *The conclusion is inescapable that the defendant had deliberately infringed the plaintiff's patent '738, and I find specifically that its blades, Nos. 3 MB-2, 3-B, 3MB, 3 MBS-2, 3 MAS and 3 MBS-1 infringed said patent.*" (p. 5a) (Emphasis added)

From the foregoing it is plain that the trial court's finding of infringement is with reference to specifically identified blades manufactured by Hap and not because of its advertising copy.

Such findings and conclusions are consistent with the requirement of Rule 52(a) of the Federal Rules of Civil Procedure (Appendix D) which indicates that, "If an opinion or memorandum of decision is filed, it will be

sufficient if the findings of fact and conclusions of law appear therein".

Though the form and sufficiency of the trial court's findings of fact may be open to question, they cannot be disregarded or set aside unless clearly erroneous. As pointed out by this Court in *Graver Tank & Mfg. Co. et al.* v. *Linde Air Products Co.*, 69 S. Ct. 535:

> "Rue 52(a) of the Federal Rules of Civil Procedure, 28 U. S. C. A., provides in part, 'Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge of the creditability of the witnesses'. To no type of case is this last clause more appropriately applicable, than the one before us, where the evidence is largely the testimony of experts as to which a trial court may be enlightened . . . *The rule requires that an appellate court make allowance for the advantage possessed by the trial court in appraising the significance of conflicting testimony and 'reverse only clearly erroneous errors.*" (pps. 537, 538). (Emphasis added)

The trial in the present action was prolonged and complicated. As noted by the District Judge, "The trial of this case consumed ten days and a great many exhibits, some of dubious value, were introduced in evidence. Counsel for the parties, after trial, filed voluminous original and reply briefs to which I have given long and serious study." (Appendix A, p. 2a).

The Circuit Court's opinion is not predicated on a review of the trial court's findings but on a "nisi prius" consideration of the evidence. In view of the special advantages possessed by the trial court in hearing the witnesses and in its first-hand examination of the evidence, if the Circuit Court felt that the findings of the trial court failed ade-

quately to express the Court's holding, then a remand for this purpose would appear to have been in order.

Clearly an independent consideration of the evidence on the assumption that findings thereon were non-existent is contrary to the requirements of Rule 52 and does not constitute a proper review. The Court of Appeals is not a trier of the facts.

POINT III

A REVIEW COURT MUST GIVE DUE WEIGHT TO THE TRIAL COURT'S FINDINGS ON VALIDITY.

In vacating the trial court's judgment in Paragraph 2 holding the '738 patent valid, the Circuit Court gave no consideration whatever to the findings of fact and conclusions of law of the trial court. These are expressed in the trial court's opinion as follows:

> "In its attempt to establish its defense that said patent is invalid over the prior art, the defendant has cited 13 prior patents in addition to those cited by the examiner. *I have considered all of these and find no basis for concluding that the improvements claimed in said patent '738 were described and set forth in those prior patents, or in any prior publications, or that the invention described therein was devoid of substantial novelty in view of the prior art.* In short, I find and conclude that said patent '738 is valid." (Appendix, p. 4a) (Emphasis added)

In its opinion denying a rehearing, the Circuit Court justified its passing over the question of validity by stating that its finding of non-infringement made this question moot. It therefor set the holding of validity aside, thereby leaving it open, as if it had never been adjudicated (Appendix C, p. 32a). It is not seen how, under Rule 52(a), a

review court can brush aside findings of a trial court in the absence of error therein.

As declared by this Court in *United States* v. *Gypsum Co. et al.*, 333 U. S. 364:

> "A finding is clearly erroneous when although there is evidence to support it the reviewing court on the entire evidence is left with the definite and firm conviction that a mistake has been committed."

Even if the question of validity became hypothetical by reason of a finding of non-infringement by the reviewing court, this did not render an existing finding on validity by the trial court erroneous. Surely if the trial court erred it should be reversed. But where the trial court's judgment on validity is not in error, it cannot simply be extinguished or put in limbo.

POINT IV

THE COURT MUST FIRST LOOK TO THE PRIOR ART BEFORE CONSIDERING INFRINGEMENT.

In its decision, the Circuit Court gave no thought to the question of validity, for having arrived at a finding of non-infringement, it looked upon validity as moot. It may be presumed, therefore, that the thirteen prior-art patents and other prior publications cited by the defendant as evidencing invalidity of the '738 patent were not reviewed.

In its findings on validity, the trial court noted that it had considered the cited prior patents and publications and found no basis for concluding that the invention disclosed in the '738 patent "was devoid of substantial novelty in view of the prior art." (Appendix A, p. 5a). Thus while the trial court analyzed the '738 invention in the context of the prior art, no consideration was given by the Circuit Court

to the inventive contribution of the patentee as measured against the prior art.

Petitioner maintains that the question of infringement cannot be resolved without taking into account the prior art also bearing on patent validity, and that the review court's failure to do so is reversible error. As this Court has stated in *Eibel Co. v. Paper Co.*, 261 U. S. 45:

> "In administering the patent law *the court first looks in the art to find what the real merit of the alleged discovery or invention is and whether it has advanced the art substantially.* If it has done so, then the court is liberal in its construction of the patent to secure to the inventor the reward he deserves. If what he has done works only a slight step forward and that which he says is a discovery is on the border line between mere mechanical change and real invention, then his patent if sustained, will be given a narrow scope and infringement will be found only in approximate copies of the new device. It is the different attitude of the courts toward genuine discovery and slight improvements that reconciles the sometimes apparently conflicting instances of construing specifications and the findings of equivalents in alleged infringements." (page 63). (Emphasis added).

The Patent Code recognizes the significance of the prior art in matters of infringement as well as validity. In Section 282 of the Code, 35 U. S. C. 282 (Appendix E) dealing with defenses against a patent, it is stated in Paragraph 4 of this Section, that:

> "In actions involving the *validity or infringement* of a patent that party asserting *invalidity or non-infringement* shall give notice in the pleadings or otherwise . . . of any patent, . . . of any publication to be relied upon as anticipation of the patent

in suit, or . . . *as showing the state of the art.*". (Emphasis added)

The independent consideration given to the question of infringement by the review court was divorced from the prior art involved in validity, and hence led to a purely abstract and semantic construction of the claims. Thus, whether a structural element defined in the claims was to be strictly construed or interpreted broadly to cover equivalent elements having a similar function, could not be properly determined.

The need to consider the prior art and background of the invention when construing claims for purposes of infringement, has been stressed by this Court in *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 70 S. Ct. 854:

> "What constitutes equivalency must be determined against the context of the patent, *the prior art* and the particular circumstances of the case. Equivalence in the patent law is not the prisoner of a formula and is not an absolute to be considered in a vacuum. It does not require complete identity for every purpose and in every respect." (pp. 856, 857). (Emphasis added)

Having shut itself off from the prior art pertinent to validity and having compartmentalized the issue of infringement, the Circuit Court thereby impaired its ability to resolve these issues.

POINT V

WHEN A PATENT IS HELD BY THE TRIAL COURT TO BE VALID AND INFRINGED, THE APPEAL COURT SHOULD PASS ON VALIDITY, EVEN THOUGH IT REVERSES THE HOLDING ON INFRINGEMENT.

In denying Heyman's petition for rehearing, the Circuit Court indicated that in vacating the trial court's holding on validity, its action did not imply that the patent was valid or invalid, "but left the matter open" (Appendix C, p. 32a). Heyman was thereby restored to his pristine and unlitigated status. The trial judgment on validity was neither reversed nor affirmed; it was wiped out.

The Circuit Court reasoned that having found non infringement, the question of validity was moot, and in this connection it relied on *Altvater* v. *Freeman*, 1943, 319 U. S. 359, 363, wherein this Court stated, ". . . To hold a patent valid if it is not infringed is to decide a hypothetical case."

There are significant distinctions between the present action and the *Altvater* case. To begin with, in that case the appeal court, while treating the validity issue as moot, did not vacate or erase the trial court's judgment, but merely passed over the issue. Moreover, despite its statement as to the hypothetical nature of the issue, this Court remanded the case to the appeal court for consideration of the validity question. In the present case, there was no remand and the issue of validity was left open.

Seemingly, the action taken by this Court in the *Altvater* case was incompatible with its statement therein and left unsettled the question of whether withdrawal of a charge of infringement rendered the issue of validity moot. This apparent contradiction has been commented on

by the First Circuit in *Hawley Products Company* v. *United States Trunk Co.*, 1958, 259 Fed. 69:

> "We are not aware of any case squarely in point. But in Altvater v. Freeman, 1943, 319 U. S. 359; 63 S. Ct. 1115; 87 L. Ed. 1450, the Court held that although a decision of non-infringement finally disposed of a bill and answer, it did not dispose of a counterclaim which raised the question of validity of the patent in suit. *Wherefore the Court remanded the case to the court of appeals for consideration of the question of validity of the patent which the district court had passed on, but the court of appeals had not because it thought the question moot. And the Supreme Court reached its result in spite of the statement appearing in 319 U. S. on page 363. 'To hold a patent valid if it is not infringed is to decide a hypothetical case'.* . . . Explanation of the apparent inconsistency perhaps lies in the fact that of the two questions of validity and infringement, validity has the greater public importance. (page 75) (Emphasis added)

Petitioner has shown that the prior art, which is a major factor in questions of validity, is directly relevant to the issue of infringement. It has also shown that while a conclusion on validity may not be essential, once a finding of non-infringement is reached, the question of infringement nevertheless entails consideration of factors underlying validity and is to that extent interwined therewith.

In failing to pass on the issue of validity, at least to the extent of evaluating the inventive contribution of the patentee, the appeal court not only subverts the requirements of Rule 52(a), but it disables itself in its consideration of infringement.

Moreover, the matter of patent validity is one both of private and public importance. A patent adjudicated to be

valid is of great value to the patentee whether or not in a particular instance it is held to be infringed. And since a patent represents a lawful monopoly, its validity or non-validity is a matter of public concern. It is for this reason that this Court has stated that of the two questions of validity and infringement, validity has greater public importance. *Sinclair & Carroll Co.* v. *Interchemical Corp.*, 1944, 325 U. S. 327.

POINT VI

THE QUESTIONS RAISED ARE OF PRIMARY IMPORTANCE.

This Court does not appear to have laid down a clear cut standard which would afford guidance in situations of the type in question and which would reconcile the requirements it has established for testing infringement with those it has set out for validity.

The uncertainties and apparent inconsistencies which exist as between the issues of infringement and validity, particularly those created by the *Altvater* v. *Freeman* case, are in need of clarification. While in a technical sense, a holding of non-infringement may render the question of validity moot, the principles underlying validity must be brought into play before resolving the issue of infringement. Also, the public importance of the question of validity appears to override what might otherwise seem to be a hypothetical issue.

Where, therefore, as in the present case, the review court, in following the *Altvater* case, isolates itself from the prior art when determining infringement, it reaches a conclusion in a vacuum and renders judgment without first weighing the contribution made by the inventor. Clearly what is called for is an evaluation of the factors

involved in validity, not necessarily to arrive at a conclusion of law on this issue, but sufficient to assess the merit of the invention preparatory to a construction of the claims alleged to be infringed.

Settlement of this question is plainly in the public interest, for the issues of infringement and validity arise repeatedly and the question is of vital concern in the administration of the patent laws.

Moreover, the complex nature of patent cases dictates the need for special care on the part of an appellate court when reviewing the findings of a trial court. The sole justification for reversal is where the appellate court is definitely convinced that the findings are in error. This conviction cannot come into being unless the appellate court has findings to consider.

If, therefore, it is the position of the appellate court that findings are lacking and the opinion of the district court "gives us no assistance", the only means by which the apellate court can secure the benefit of the local court's special advantage in hearing the case, is to remand the case for findings deduced from the evidence. An independent consideration of the evidence without any regard for the trial court's evaluation thereof, is not a fair review.

CONCLUSION

For the foregoing reasons, this petition for a writ of certiorari should be granted.

Respectfully submitted.

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APPENDIX A

Opinion of District Court for the District of Rhode Island

June 23, 1961

DAY, *District Judge*. In this suit, as originally filed, plaintiff alleged infringement by the defendant of plaintiff's patent No. 2,476,738, issued July 19, 1949, to plaintiff as assignee of Ferdinand Klumpp, Jr. for the construction of a solderless blade for electrical plug caps. In its answer setting up the defenses of invalidity and non-infringement the defendant included a counterclaim alleging that plaintiff had infringed the claims of four letter patent belonging to it as the assignee of William P. Herman. These patents are (1) No. 2,191,384, issued February 20, 1940 for the construction of a contact plug, (2) No. 2,191,385, issued February 20, 1940, also for the construction of an electrical plug, (3) No. 2,198,966, issued April 30, 1940, for the construction of a connector plug assembly apparatus and (4) No. 2,278,176, issued March 31, 1942, also for the construction of an apparatus for assembling of connector plugs.

After the filing of the defendant's answer and counterclaim, the plaintiff was granted leave to file, and did file, an amended complaint wherein it alleged that the defendant had also infringed its patent No. 2,558,052, issued to it on June 26, 1951, as the assignee of the said Klumpp, Jr. This patent related to a process for making solderless blades for electrical plug caps. In its answer to this complaint, the defendant also asserted that said patent was invalid for want of invention and also denied infringement thereof.

Plaintiff in its answer to defendant's counterclaim denied the invalidity of each of the defendant's patents and

in the alternative, any infringement thereof. However, during the trial and in its brief, its defenses thereto were —"(1) The claims of the '384 and '385 patents in suit are invalid because William P. Herman is not the inventor thereof, (2) The claims of the '966 capping machine patent in suit are an invalid combination of features that are old in the prior art. (3) The claims of the '966 capping machine patent are invalid as Herman is not the inventor thereof, (4) Heyman does not infringe any claims of the '176 patent in suit."

The trial of this case consumed ten days and a great many exhibits, some of dubious value, were introduced in evidence. Counsel for the parties, after trial, filed voluminous original and reply briefs to which I have given long and serious study. To recite and discuss the many and diverse contentions advanced by the parties would serve no useful purpose and would unnecessarily prolong this opinion. In all candor, in some respects the evidence adduced left much to be desired in respect to its value.

As hereinbefore stated, the Klumpp patent '738 relates to the construction of a solderless blade for an electrical plug cap. It contains two claims, both of which, the plaintiff contends have been infringed by the defendant. These claims read as follows:

> "1. A solderless blade for an electrical plug cap comprising, a one piece strip of suitable material having its opposite ends bent over toward each other to form a two part slidable plug contact portion, one of said contact parts being longer than the other and terminating in a bent over end divided so as to receive an insulated electrical conductor therebetween, each division having a finger at its end initially ex-

tending at an acute angle inwardly toward the other as well as toward the conductor and adapted to be forced into the insulation of the conductor on opposite sides of a diameter thereof, the shorter of said two contact portions having means at its end for assisting in locating the blade in the plug cap, a pair of oppositely spaced lugs on the longer of said blade portions positioned adjacent said locating means, the lugs having their free edges formed diagonally in opposite directions so when they are bent over the bare conductor end, their edges will substantially meet and form a gripping closure around said conductor end.

2. A solderless blade for an electrical plug cap comprising, a one piece strip of suitable metal having its opposite ends bent over toward each other to form a two part slidable plug contact portion, one of said contact parts extending beyond the other part and terminating in a bent over end projection before assembly with a conductor in a direction which will intercept a plane extending from the shorter of said two parts, this bent over end consisting of two portions spaced so as to receive the outer insulation of an electrical conductor therebetween, each of said spaced portions terminating in a finger projecting outwardly at an angle to the plane of said portion, said spaced portions being adapted to be forced downwardly and toward the plug contact portions while the said fingers are adapted to be simultaneously forced downwardly and inwardly toward each other into gripping position over the insulation of the conductor, said extending contact part, having cutaway sections on opposite sides adjacent the end of the other of said two plug contact portions, said cutaway sections forming lugs having their free edges cut on diagonals whereby when these lugs are forced

Appendix A—Opinion of District Court for the District of Rhode Island

over the bared end of the conductor they will substantially meet and form a gripping enclosure around the conductor end."

The evidence establishes that prior to the introduction of contact blades made in accordance with the teachings of the '738 patent, the bulk of all contact blades made and sold were of solid construction about 1/16" thick with holes to permit the conductor to be soldered to the blade. It is clear that the attachment of the conductor to that type of blade was time consuming and expensive, but was necessary to produce a secure bond between the contact blade and the conductor. In addition, when solder was used to secure the conductor to the blade, there was a tendency for the solder through capillary action to be drawn up into the conductor, causing it to stiffen and to become difficult to handle in assembly operations.

The testimony further establishes that the difficulties incident to the use of soldered blades limited the assembling of cord sets by one operator to between 200 and 300 per hour. After the introduction of said solderless, crimped blade, made in accordance with said '738 patent, the number of cord sets assembled by one operator using such blades increased to an average of 2000 per hour. Moreover, it is clear that the solderless blades produced prior thereto had insecure and unsatisfactory conductor and insulation grippings. That said solderless blade met with substantial and continued commercial success is established beyond doubt.

In its attempt to establish its defense that said patent is invalid over the prior art, the defendant has cited 13 prior patents in addition to those cited by the examiner. I have considered all of these and find no basis for concluding that

the improvements claimed in said patent '738 were described, and set forth in those prior patents, or in any prior publications, or that the invention described therein was devoid of substantial novelty in the view of the prior art. In short, I find and conclude that said patent '738 is valid.

Defendant's further contention that said patent describes an inoperative disclosure, in my opinion, requires no discussion. The credible evidence satisfies me that the plaintiff's blades are made in accordance with the disclosures of said patent.

It further appears that the defendant, in late 1951, after several attempts to produce a satisfactory solderless contact blade, began to manufacture and sell a crimped blade indistinguishable from the patented product. That the defendant appreciated this is shown by its admitted use in its sales catalogue, describing its products, of a copy of a drawing of the plaintiff's used by the latter in advertising its blades. The conclusion is inescapable that the defendant has deliberately infringed the plaintiff's patent '738, and I find specifically that its blades, Nos. 3 MB-2, 3-B, 3 MB, 3 MBS-2, 3 MAS and 3 MBS-1 infringed said patent.

Originally, plaintiff contended that the defendant, in the manufacture of its solderless blade P.P.E., infringed claims 1, 2, 3, 4, and 6 of its '052 patent. During the trial it relied solely on alleged infringements of claims 4 and 6, and withdrew any and all claims of alleged infringements of claims 1, 2 and 3. Patent '052 relates to the process of making solderless contact blades from a strip of suitable metal fed in and through a progressive die. Defendant concedes that its P.P.E. blade is made from a single strip of metal, fed in and through a progressive die.

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The evidence discloses that the application of said patent '052, after substantial amendments to its claims, was finally allowed by the Board of Appeals which reviewed the conclusions of the Examiner.

Claims 4 and 6 of this patent read as follows:

> "4. The process of making solderless blades for electrical plug caps which consist in passing a strip of suitable metal through a punch press, punching four rows of holes longitudinally of the strip, two rows being near one edge and spaced apart but a short distance but in transverse alignment, the other rows being toward the opposite edge of the strip and in transverse lines midway between the transverse alignments of the holes near said one edge, shearing off the metal diagonally starting from the edge of the strip, at a point so the major part of the shear will be below the hole, each shear extending to its hole in the row nearest the ledge and to the lower part of the hole farthest away from the starting point of the diagonal and at the same time shearing off on a diagonal, the metal from an upper corner of this edge positioned hole to the hole in alignment in the inner row, at the same time transversely shearing off the metal from the hole in the inner row to the opposite edge of the strip passing midway between two pair of holes located toward said opposite edge, except for a small retaining lug, and then bending over a positioning ledge at the free sheared edge, then bending over the sheared end having the ledge with the bend coming midway between the second mentioned rows of holes until it engages the metal adjacent the inner holes of the edge rows, then forming up the metal portion defined by said diagonal shearing to provide fingers to receive the bared end of a conductor and the insulation of the conductor."

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> "6. The process of making solderless blades for electrical plug-caps as set forth in claim 4 further defined in that the process includes forming at least two of the blades simultaneously."

In this patent the objects of the invention are stated to be not only to make a blade like that covered by patent '738, for secure gripping of the conductor and the insulation of the conductor, "but to accomplish these objects in a cheaper manner by using less material to offset increasing cost thereof, and processing the same in a new and improved manner to offset at least in part higher labor costs."

Claims 4 and 6 were originally denied by the examiner for want of novelty over prior art. On appeal, the Board of Appeals, in reversing the examiner and allowing said claims said:

> "The claims on appeal define a sequence of detailed punching and shearing steps resulting in the production of contact blades in a manner stated to be cheaper because less material is used and the Examiner is of the opinion that the claimed process is lacking in invention over the references. . . . We think there is a relationship between the claimed punching and diagonal shearing steps and the transverse shearing of the strip, serving to delimit the blade that is not disclosed in the references and we are of the opinion that practice of the claimed method would result in the advantages that have been attributed to it . . ."

Plaintiff offered no testimony by an eye-witness as to the method or process employed by the defendant in the manufacture of its P.P.E. blade. To support its claim

of infringement it relied upon the testimony of an expert who undertook to describe the steps in its manufacture from an examination of a strip of completed blades and a development strip of such P.P.E. blades showing the production of the blade from the original metal strip.

Without summarizing his testimony, it is fair to say that at best it was conjectural. In opposition thereto the defendant produced a witness who had observed the actual production of defendant's blade. From a consideration of this conflicting testimony I am satisfied that the process employed by the defendant is substantially dissimilar from that covered by the patent. Plaintiff's process employs five separate steps, one of which is punching for metal removal and a second of which is shearing four separate and distinct lines for metal separation, with the remaining steps involving bending and forming operations. Defendant's process, on the other hand, involves nine separate steps, the first, second, third, fourth and sixth steps, involving punching, with a considerable amount of metal being removed from the metal strip thereby; the fifth step involving a single shear line, and the remaining steps involving bending and forming operations. In addition to the dissimilarity of the steps employed and the sequence in which they occur, the blade produced by the defendant's process is different from that covered by said patent. The method covered by the patent involved the formation of blades which closely adjoin one another and which are separable by slight pressure by one's fingers for the purpose of assembly in a cord set, and relatively little scrap or waste of metal is produced in their manufacture. On the other hand, the defendant's blades, in their manufac-

ture, are spaced substantially apart and are connected by a bridge bar which must be severed in a separate operation and considerable scrap results from the five punching operations employed in their construction.

Plaintiff concedes that I must find that punching and shearing are equivalent operations if said claims 4 and 6 are to be found to be infringed by the method employed by defendant in its production of said P.P.E. blade. I am unable to so conclude. In my judgment, as used in said patent, "shear" means merely metal separation along a line, without any appreciable scrap resulting therefrom, while "punch" means an area of metal removal with considerable scrap being produced thereby. Having in mind the crowded state of the art when said patent '052 was allowed on appeal, and the obvious weight given by the Board of Appeals to the claimed savings in material to be effected by the asserted invention of the applicant, I am unwilling to conclude that "shearing" and "punching" are equivalents.

Plaintiff concedes that said patent did not cover spaced blades with scrap formation between the contact portions of the blade, as is present in the P.P.E. blade. Defendant's blade is clearly such a blade.

Since defendant's process does not perform substantially the same function as that covered by said patent in the same way to obtain the same result, it cannot be said that defendant's process infringes said patent. *Graver Tank & Mfg. Co., Inc.* v. *Linde Air Products Co.*, 1950, 339 U. S. 605; *Holtzer-Cabot Electric Co.* v. *Standard Electric Time Co.*, 1940, 1 Cir., 111 F. 2d 71.

Patents '384 and '385, as hereinbefore stated, relate to the construction of electrical contact plugs. They were

issued the same day with consecutive numbers. They differ only in that the contact blades could be inserted from either end of the plug in patent '384, and from only one end in patent '385. Defendant contends that plaintiff's plugs, defendant's exhibits XX and YY, infringe these patents. It was conceded by the plaintiff that said accused items were made and sold by it within the six year period prior to the expiration of said patents. Plaintiff offered no evidence on the issue of the infringement thereof.

I am satisfied by the evidence and conclude that patent '384 was infringed by plaintiff's structure, defendant's exhibit XX, and that its structure, defendant's exhibit YY, infringed said patent '385.

The sole issue with respect to these patents is—was the said Herman the inventor of the inventions covered by said patents. The plaintiff has endeavored to show that one Arthur Brownstein, an employee for about three months in 1935 of the corporation of which Herman was then the president, was in fact the inventor. The evidence shows that Brownstein left his employment after a disagreement with Herman. About two years later Brownstein apparently instigated by others filed an application for a patent on a resilient rubber electric plug which covered substantially the same ideas and structures set forth in applications for letters patent previously filed by Herman in May, 1935 and in April, 1938. In 1939, the defendant (then called Electrix Corporation) sued Brownstein in the United States District Court for the District of Connecticut for cancellation of his application which had become involved in an interference proceeding with said Herman applications. It appears that this suit was settled

in the same year for the sum of $2,700. upon the relinquishment by Brownstein of any and all claims to the inventions claimed by Herman in his applications. Thereafter, said patents '384 and '1385 were issued to Herman. Brownstein testified in support of plaintiff's contention that he, not Herman, was the inventor of said contact plugs covered by said patents. Frankly, I was far from impressed by his testimony and I am not satisfied that he was the inventor of said structures. Similarly, I was not convinced by the testimony of the witness, Carl H. Judisch, who was a fellow employee of Brownstein for said period of about three months in 1935, and who endeavored to corroborate the testimony of Brownstein as to certain events claimed to have occurred more than twenty-five years prior to the trial of this case.

The situation presented is governed by the rule of law that when a person charged with infringement of a patent seeks to establish anticipation by means of oral testimony he must do so by proof that leaves no reasonable doubt as to the fact. This rule of law is clearly stated in The Barbed Wire Patent, 1892, 143 U. S. 275, where the Supreme Court said at page 284:

> "... Witnesses whose memories are prodded by the eagerness of interested parties to elicit testimony favorable to themselves are not usually to be depended upon for accurate information. The very fact, which courts as well as the public have not failed to recognize, that almost every important patent, from the cotton gin of Whitney to the one under consideration, has been attacked by the testimony of witnesses who imagined they had made similar discoveries long before the patentee had claimed to have invented his device, has tended to

> throw a certain amount of discredit upon all that class of evidence, and to demand that it be subjected to the closest scrutiny. Indeed, the frequency with which testimony is tortured, or fabricated outright, to build up the defense of a prior use of the thing patented, goes far to justify the popular impression that the inventor may be treated as the lawful prey of the infringer. The doctrine was laid down by this court in Coffin v. Ogden, 18 Wall. 120, 124, that 'the burden of proof rests upon him, 'the defendant, 'and every reasonable doubt should be resolved against him * * *' This case was subsequently cited with approval in Cantrell v. Wallick, 117 U. S. 689, 696, and its principle has been repeatedly acted upon in the different circuits. . ."

See also, *Cold Metal Products Company* v. *E. W. Bliss Company*, 1960, 6 Cir., 285 F. 2d 244; *Western States Mach. Co.* v. *Ferguson*, 1931, D. C. R. I., 47 F. 2d 775.

In my opinion, the testimony that Brownstein invented the devices covered by said patents is far from clear and convincing, and falls far short of being adequate proof to overcome the presumption of the validity of said patents.

Similarly, the plaintiff contends that said '966 patent is invalid because of want of invention and, secondly, because if the method constituted invention, that the said Judisch and not Herman, was the discoverer thereof. In support of the first of these contentions the plaintiff cites two prior art patents, viz., Brown, U. S. Patent No. 2,097,057, filed 15, 1932 and issued October 26, 1937, and Turner, U. S. Patent No. 2,163,716, filed January 26, 1935 and issued June 27, 1939.

The broad idea that electric caps must have the ends thereof spread open to permit entry of the blade-conductor

assembly is clearly disclosed by the Brown patent. Its specifications provide as follows:

> "After the wires of the cable 3 have been attached to the terminals 6 and 7 as just described and as shown in Figure 3, they are adapted to be inserted in the plug 1. This is done by means of a suitable expanding tool which is adapted to be inserted into the hole 2 and operated to expand the upper end of the plug so that the cable 3 with the terminals 6 and 7 may be inserted therethrough. The terminals 6 and 7 are guided into their respective channels 4 and 5 by another cooperating tool, and the lugs 8 will be located in their seats 9. When the said tools are removed from the plug, the terminals will be securely gripped in the channels 4 and 5 and seats 9, so that the complete assembly is substantially as illustrated in Figure 1." (page 1, lines 5-21).

The patentee claiming the electric contact plug covered thereby to be an article so constructed and to have such properties as to permit the carrying out of the methods of assembly described in claims 5, 6 and 7 of said patent. Claims 1 to 4 relate to the plug. Typical of these claims is claim 3 which read as follows:

> "3. An integral resilient plug body having a plurality of parallel openings extending into the body in one direction and adapted to receive contact prongs, a single opening extending into the body in opposition to said first direction and communicating with all said parallel openings, the walls of said single opening extending in said first direction but a short distance from the adjacent ends of said spaced openings and adapted to be stretched to permit

direct insertion of contact prongs into said spaced openings."

Claim 6 is typical of the assembly method claims. It reads as follows:

> "6. The method of locating a pair of spaced contact pins in a plug body of resilient material having a central axial opening at its inner end and two spaced axially-extending openings at its outer end connected with the axial opening, which includes the steps of forcing the walls of said axial opening at the inner end of the plug apart a distance greater than the distance between the two spaced axially-extending openings, moving the spaced contact pins simultaneously in a straight line movement through the distended central axial opening into the plug body to proper axial positions relatively to the plug body and then permitting the forced-apart walls to approach each other to substantially normal position."

While it is true that Brown does not include any drawing of the suitable expanding tool referred to in the specifications, or of the method of inserting or removing it, it would seem to be well within the range of any routine machine designer to devise a tool for carrying out such disclosure, and the development of such a mechanism would not amount to invention. *Saranac Automatic Machine Corporation* v. *Wirebounds Patents Company*, 1932, 282 U. S. 704.

Moreover, a practical scheme for carrying out the disclosure of Brown is taught by the Turner patent which appears to have been overlooked by the examiner, for it is nowhere cited in the file of said '966 patent. In my opinion, the defendant's characterization of Turner as

"Rube Goldberg" is unwarranted and cannot serve to minimize the teachings of that patent. While it may be conceded that defendant's method has practical advantages over the prior art, it cannot be said that the improvements made by Herman rise to the dignity of invention. I conclude, therefore, that said patent '966 was invalid for want of invention.

My conclusion in this regard makes it unnecessary for me to discuss in detail plaintiff's further contention that said Herman was not the inventor of the method covered by said patent. Without reviewing the evidence directed to this contention, I find that the testimony offered to show that Judisch was the inventor of said alleged discovery falls far short of the quality and quantum of proof required in such case. *The Barbed Wire Patent, supra; Gold Metals Products Company v. E. W. Bliss Company, supra; Western States Mach. Co. v. Ferguson, supra.*

As originally filed, the application which resulted in the issuance of said patent '176 contained 31 claims. Eventually said application was granted as to 4 claims only. Each of these claims recites that certain "lock pins" are employed to hold the neck spreading mechanism open while the blade conductor assembly is drawn through the electrical cap.

For example, claim 1 recites as its final element:

> ". . . and lock pins slidably mounted on said base and adapted to enter openings in said blocks when said blocks are in separated positions for locking said fingers in distending position during the movement of said carriage."

It is undisputed that the plaintiff's accused machine employs no lock pins. The evidence clearly establishes that

the lock pins perform important and specific functions in defendant's machine and that a different cam action is employed in the accused machine.

Where claims are limited in the patent office following cancellation or rejection, as in this instance, the terms of limitation are controlling. *Schriber-Schroth Co.* v. *Cleveland Trust Co.*, 1940, 311 U. S. 211; *Weber Electric Co.* v. *E. H. Freeman Electric Co.*, 256 U. S. 668.

In *Schriber-Schroth Co.* v. *Cleveland Trust Co.*, *supra*, the Supreme Court held at page 220:

> "It is a rule of patent construction consistently observed that a claim in a patent as allowed must be read and interpreted with reference to claims that have been cancelled or rejected, and the claims allowed cannot by construction be read to cover what was thus eliminated from the patent. (citations omitted). The patentee may not, by resort to the doctrine of equivalents, give to an allowed claim a scope which it might have had without the amendments, the cancellation of which amounts to a disclaimer."

The accused machine and that covered by the '176 patent are completely different in design. As noted by the examiner who rejected all the claims of the Herman application, original and amended, Brown and Turner had both earlier taught the idea of spreading open the electrical cap and pulling the blade-conductor assembly into the cap from the face thereof. The only contribution of the '176 patent is the teaching that the spreading mechanism employed to distend the cap may be kept open during the pulling operation by means of said lock pins.

In view of the prior art and the cancellation and rejection of the claims originally filed, I believe that the patent-

should be construed as limited to a machine employing lock pins to keep the spreading mechanism open during the pulling operation, and ought not to be given any broader interpretation. *Schriber-Schroth Co. v. Cleveland Trust Co.; supra.* I find and conclude that plaintiff's machine does not infringe said '176 patent.

In summary, I find and conclude that defendant's blades, Nos. 3 MB-2, 3B, 3 MB, 3 MBS-2, 3 MAS and 3 MBS-1 infringe the plaintiff's patent No. 2,476,738, and that the plaintiff is entitled to a permanent injunction against further infringement by the defendant and an accounting for profits and damages; that defendant's patents Nos. 2,191,384 and 2,191,385 were valid, that plaintiff's products, defendant's exhibits XX and YY, infringed them and that the defendant is entitled to an accounting for profits and damages; that defendant's patent No. 2,198,968 was invalid for want of invention over the prior art and that plaintiff has not infringed defendant's patent 2,278,176.

The parties will prepare and submit a decree in accordance with the foregoing findings and conclusions.

(s) EDWARD W. DAY

United States District Judge

FINAL JUDGMENT

This cause having come on to be heard before this Court, and the Court having rendered its opinion including findings of fact and conclusions of law, it is

Appendix A—Opinion of District Court for the District of Rhode Island

ORDERED, ADJUDGED AND DECREED:

1. That United States Letters Patent No. 2,476,738, issued to plaintiff on July 18, 1949, as assignee of the inventor Ferdinand Klumpp, Jr., is good and valid as to claims 1 and 2 thereof;

2. That the defendant has infringed claims 1 and 2 of the said patent No. 2,476,738;

3. That United States Letters Patent No. 2,558,052, issued to plaintiff on June 26, 1951, as assignee of the inventor Ferdinand Klumpp, Jr., is good and valid as to claims 4 and 6 thereof;

4. That the said patent No. 2,558,052 has not been infringed by defendant;

5. That plaintiff's amended complaint be sustained as to the said patent No. 2,476,738, but dismissed as to the said patent No. 2,558,052.

6. That United States Letters Patent No. 2,191,384, dated February 20, 1940, owned by defendant-counterclaimant as assignee of the inventor William P. Herman, is good and valid in law as to claims 2, 3, 4, 5, 6 and 8 thereof;

7. That plaintiff has infringed claims 2, 3, 4, 5, 6 and 8 of the said patent No. 2,191,384;

8. That United States Letters Patent No. 2,191,385, dated February 20, 1940, owned by defendant-counter-

claimant as assignee of the inventor William P. Herman, is good and valid in law as to claims 2, 3 and 7, thereof;

9. That plaintiff has infringed claims 2, 3 and 7 of the said patent No. 2,191,385;

10. That United States Letters Patent No. 2,198,966, dated April 30, 1940, owned by defendant-counterclaimant as assignee of the inventor William P. Herman, is invalid as to claims 1, 3, 5, 6, 8, 9 and 11 to 16 thereof;

11. That United States Letters Patent No. 2,278,176, dated March 31, 1942, owned by defendant-counterclaimant as assignee of the inventor William P. Herman, is good and valid as to claims 1, 2 and 3 thereof;

12. That the said patent No. 2,278,176 has not been infringed by the plaintiff;

13. That defendant's amended counterclaim be sustained as to the said patents Nos. 2,191,384 and 2,191,385, but dismissed as to the said patents Nos. 2,198,966 and 2,278,176;

14. That a perpetual injunction issue out of and under the seal of this Honorable Court, directed to the defendant HAP Corporation, its associates, directors, officers, attorneys, clerks, servants, workmen, representatives, confederates and privies, and all persons, firms, and corporations claiming by, through and under it, or in active concert or participation with it, under its authority restraining them and each of them from making, using, sell-

ing or offering to sell, and/or distributing solderless blades for electric caps embodying the invention patented and claimed in the United States Letters Patent 2,476,738, during the term of such patent.

15. That the case be referred to Francis O'Brien, Esq. of Industrial Trust Bldg., as Special Master, to ascertain the amount of the profits made by defendant, or damages adequate to compensate plaintiff for said infringement by defendant of the said patent No. 2,476,738 and to determine a reasonable royalty for the use made of the invention of said patent No. 2,476,738 by defendant, and to ascertain the amounts of the profits made by plaintiff and damages adequate to compensate defendant for said infringements by plaintiff of said patents Nos. 2,191,384 and 2,191,385 and to determine a reasonable royalty for the uses made of the inventions of said patents Nos. 2,191,384 and 2,191,385 by plaintiff, and thereupon to report to this Court for the determination by the Court of the amounts to be awarded to the plaintiff and to the defendant respectively by reason of said infringements; and that the parties, on the taking of accounts before said Special Master, shall have the right to cause an examination of the plaintiff and of the defendant, ore tenus, or otherwise as the Special Master may determine, and also said Special Master shall have the right to cause the production of all proper books, vouchers and documents of the parties for the determination as to reasonable royalties, and to direct the attendance

of the parties hereto before him for such purposes from time to time as said Special Master shall direct:

16. The parties shall bear their own costs.

DATED: Providence, Rhode Island, Nov. 17, 1961.

(s) EDWARD W. DAY
United States District Judge

Approved as to form

(s) JOHN H. CHAFEE
Attorney for Plaintiff

(s) MAX SCHWARTZ
Attorney for Defendant

APPENDIX B

Opinion of United States Court of Appeals for the First Circuit

November 20, 1962.

ALDRICH, *Circuit Judge*. Heyman Manufacturing Company sued Hap Corporation for infringement of two patents. Hap counterclaimed for infringement of four others. The district court found for plaintiff on one patent, and for plaintiff in counterclaim on two. 196 F. Supp. 447. On these appeals each party has accepted one defeat, so that now four patents are involved.

Both parties have been engaged for many years in the metal stamping business making, *inter alia*, blades to be inserted (in pairs) in plugs by which household electrical cords, or conductors, can be connected with wall receptacles, or outlets. The problems needed to be met in the manufacture of plug and cord assemblies are the establishment of an electrical union between the blade and the wire, and the obtaining of a secure overall connection to withstand abuse by users who, in removing from the receptacle, pull on the cord instead of the plug. Until after World War II both problems were usually, although not always, met in this type of plug by soldering the wire to the blade. This method was time-consuming, and so produced high labor costs. In March, 1947, one Klumpp, assignor to plaintiff Heyman, filed an application for a solderless blade, which was granted as Patent No. 2,476,738 on July 19, 1949. The Patent Office proceedings resulted in the abandonment of all seven original claims because of prior art, or because purely functional, and the adding of three more, one of which was early accepted and became claim 1, and two of which, after extensive

revision, became claim 2, the only allowed claim. Our very considerable difficulty with this patent comes in part from the court's failure to deal with this history, an error possibly it was led into by accepting as a patent expert for Heyman a man with very valuable experience in the cord assembly field, but who admittedly knew nothing about patents, and who testified freely about this one without having looked at, let alone comprehended, the file wrapper. We have indicated the superficiality of such an approach before. *Unistrut Corp. v. Power*, 1 Cir., 1960, 280 F. 2d 18; *Progressive Engineering, Inc. v. Machinecraft, Inc.*, 1 Cir., 1959, 273 F. 2d 593, 598. See also *Carter Products, Inc. v. Colgate-Palmolive Co.*, 4 Cir., 1959, 269 F. 2d 299; *Moon v. Cabot Shops, Inc.*, 9 Cir., 1959, 270 F. 2d 539, *cert. den.*, 361 U. S. 965.

The '738 patent shows an elongated metal strip, bent back on itself, the bend forming the apex of the ultimate blade. One returning end terminates with (claim 1), or without (claim 2), a right-angle positioning ledge for firmer location within the plug. The other, longer, returning end terminates with two sets of lugs, or clamps. In assembly with the cord the inner lugs are crimped over the exposed end of one of the wires, and the outer set over its insulation. During the prosecution the examiner pointed out, and the evidence at the trial abundantly shows, that solderless clamps for bare wire, and various methods of gripping insulation, were old; that it was not invention to combine the two, and that the novelty, if any, was in the method. It was further evident that there was no novelty in Klumpp's bare wire clamps, or in the claim 1 positioning ledge. As the examiner said, "Invention, if any, lies only in insulation gripping means." These means, in the

stamped, pre-assembly blade, which is the patent, are described as follows.

> Claim 1. ". . . a one piece strip . . . terminating in a bent over end divided so as to receive an insulated electrical conductor therebetween, each division having a finger at its end initially extending at an acute angle inwardly toward the other as well as toward the conductor and adapted to be forced into the insulation of the conductor on opposite sides of a diameter thereof. . . ."
>
> Claim 2. ". . . a one piece strip . . . terminating in a bent over end . . . consisting of two portions spaced so as to receive the outer insulation of an electrical conductor therebetween, each of said spaced portions terminating in a finger projecting outwardly at an angle to the plane of said portion, said spaced portions being adapted to be forced downwardly and toward the plug contact portions while the said fingers are adapted to be simultaneously forced downwardly and inwardly toward each other into gripping position over the insulation of the conductor. . . ."

Claim 1 requires no extensive consideration. We are unwilling, and particularly so in the light of the claim history, to accept "forced into the insulation . . . on opposite sides of a diameter thereof" as meaning, or equivalent to, within a single semicircle, viz, on the *same* side of a diameter. Heyman contends that this phrase is satisfied by placing the fingers within the top semicircle, one on each side of a "vertical" diameter. Such an interpretation would seem meaningless. It would be almost impossible to place two fingers so that they did not satisfy "on opposite sides of a diameter" within this construction. The drawings do not show fingers adjacent to each other within a single semi-

circle, but fingers extending to the point of being diametrically opposite each other, which exactly fits the phrase in question. Perhaps even more important, Heyman's contention would mean that there was no essential difference between "on opposite sides of a diameter," claim 1, and merely "over the insulation," claim 2.[1] The file history shows a preoccupation on the part of the examiner with the exact positioning of the "gripping." He readily allowed claim 1. We think this was clearly because he considered it as having the specificity we have just outlined for the location for the fingers. The claim language must be taken to mean what it says. *Cf. Moon v. Cabot Shops, Inc., supra.* On this basis there is no infringement, for the fingers of the accused device have not been shown to fall within this description.[2] The balance of this opinion will, accordingly, deal only with claim 2.

We observe, preliminarily, that the insulation grips, as described in the specifications, were produced by removing a central portion of the longer returning end so as to leave two separated what we shall call prongs, termed in the patent "spaced portions." Each of these, in turn, terminates in a tab or "finger projecting outwardly at an angle to the

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[1] Heyman in fact argues that there is no difference between claim 1 and claim 2 except for the presence in claim 1 of the positioning ledge earlier referred to. This not only ignores the difference in language we are presently discussing, but again ignores the file history. The examiner pointed out, and plainly established, that there was no novelty in the positioning ledge. Thus there would have been no reason for allowing claim 2 if there were not some other, significant, difference.

[2] Heyman's disposal of the word "diameter" as "a semantic convenience," and of Hap's contentions as "subtle reasoning," like much of its brief, is less than constructive. Its explanation of the extensive file wrapper history of both claims as being mere "semantic interplay" warrants equal if not a sharper comment.

plane of said portion." It is clear that "outwardly" is in the direction of the cord, or away from the blade end, the blade end being "inward," (*i.e.*, toward the major bend in the strip). The latter is demonstrated by the specifications quoted immediately *infra*, which define "inwardly" "as shown by figure 6." Figure 6 shows a bend toward the blade end. Correspondingly, "outwardly," with specific reference to the direction of the fingers, was twice defined in a letter to the examiner "as shown in figure 3." Figure 3 shows the projection away from the blade end.

The prongs, in turn, are bent upwards,[3] so that in assembly they will receive, and flank, the wire. The specifications are explicit as to the total function. The prongs, or spaced "portions 4 and 5 have fingers 7 and 8 respectively which are adapted to be bent on diagonal lines or at acute angles with respect to the axis of the conductor so as to grip the insulation . . . after the parts 7 and 8 are forced toward each other over the insulation at the same time that the portions 4 and 5 are bent inwardly, as shown in figure 6." Throughout the processing, the importance of detail was emphasized by the examiner. In criticising an earlier-phrased claim he said that it failed to "set forth physically the *specific* elements that are to grip the insulation . . . The portions furthermore are at a definite angle to the *fingers* and it appears that this angle is maintained when the insulated conductor is secured to the blade . . . . Upon bending the portions to an acute angle with respect to the plane of

[3]Many of Hap's defenses stem from the fact that the patent drawings show this as a right-angle bend. We have considered all of these arguments, and shall not further refer to them. But we observe at this point that the phrase "right-angle bend" was once in the claims, and was removed. Furthermore, portions of a drawing that are not even indirectly defined in the specifications or claims are not limitations in any event.

one of the blade legs, [*i.e.*, "towards the plug contact portions," to quote the eventual claim] the overhanging metal will engage the insulation of the conductor, particularly the apex formed on the line of bend between the portions and the fingers. This is considered the exact point of novelty and may not be defined merely as 'spaced portions having outwardly extending fingers'." (ital. in orig.) A similar comment is quoted *infra*.

With this background we turn to the question of infringement. On this the district court gives us no assistance. After quoting both claims in full, and reciting Heyman's commercial success, the court simply states that "said patent '738 is valid . . . [that the] credible evidence satisfies me that the plaintiff's blades are made in accordance with the disclosures of said patent' . . . [and that because Hap used in its advertising a copy of a drawing of the plaintiff's product] [t]he conclusion is inescapable that the defendant has deliberately infringed the plaintiff's patent '738 . . ." The court did not analyze the claims, or the differences between them. Nor did it resolve any of the conflicts in the testimony, or make findings of fact in accordance with Fed. R. Civ. P. 52(a). In this posture we have two alternatives: either to remand the action for findings or, if we determine that the evidence viewed most favorably to Heyman would not warrant a finding of infringement, to dismiss this portion of the complaint.

In our opinion, dismissal is the proper course. The accused insulation gripping device departs in at least two particulars from the provisions of claim 2 of the patent.

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[4]This is a perhaps debatable question which we need not go into, except to say that it would have been better to have tested the accused device directly against the patent.

Most obvious is the fact that its fingers project "inwardly," and not "outwardly." Secondly, we do not agree with Heyman's contention that the "spaced portions [are] adapted to be forced" . . . toward the plug contact portions." It is true that its expert testified, simply from drawings of the accused device, that they were so "adapted." Although examination of the accused device might suggest doubts as to the adaptability, particularly in the manner described in the patent, for present purposes we will assume that such movement was practical as well as possible. However, there was no testimony that it was done. This is a functional device. The question is not what it might have been made to do, but what it was intended to do and did do. If it did not function in an equivalent manner it was not an equivalent device. The opinion of a witness some years after the event that a device could have been made to do something else does not of itself establish infringement. The accused blade could be used only with a machine especially made for the purpose. On the undisputed evidence Hap's assembly machine did not project the spaced portions "toward the plug contact portions," but solely downward towards the wire. Hap calls this a 90° difference. Whether it was or not, it did not follow the teachings of the patent. *Cf. John Waldron Corp.* v. *Equitable Paper Bag Co.*, 3 Cir., 1939, 106 F. 2d 724.

In the aggregate these differences were important. Nothing is clearer on the record than the accuracy of the examiner's observation, in rejecting earlier broad claims, that "Insulation gripping tongues, barbs and the like are considered conventional, and especially so in solderless connectors. . . ." The examiner was consequently properly insistent upon specificity. "How are the fingers spaced?

How do they move toward the insulation? Just what is the 'gripping position'?" The applicant supplied specific directions. Heyman now asks us to reverse one of them from "outwards" to "inwards," and to ignore the other entirely. We cannot apply the doctrine of equivalents with so lavish a hand unless we say that any gripping device which has "fingers" is an equivalent. In the then state of the art, the examiner constantly refused to take such a view. So must we. *Cuno Engineering Corp.* v. *Mechl*, 2 Cir., 1940, 113 F. 2d 862; *Moon* v. *Cabot Shops, Inc.*, *supra*.

The second part of Hap's appeal relates to the court's conclusion that its Patent No. 2,198,906, issued April 30, 1940 is invalid. This is a machine patent for inserting blades into plugs. The court relied on two prior patents, one of which was not cited by the examiner. Hap admitted a very considerable relevancy of the latter, although, of course, disputing its sufficiency. We have reviewed the record as to invalidity, but do not think any useful purpose would be served by discussing it, particularly as this patent has now expired. Suffice it to say that this was a factual situation, and that we are not prepared to say the court was plainly wrong.

Heyman's cross-appeal also raises esentially only questions of fact. Hap's counterclaim, *inter alia*, sought damages for infringement of two of its patents, Nos. 2,191,384 and 385, issued February 20, 1940. These were patents for machines for inserting assembled blades into flexible rubber plugs. Heyman's defense was that Hap's assignor, Herman, was not the real inventor, but that the invention had actually been conceived by one Bronstein. Considerable testimony was presented by both sides on this issue. This included testimony by Bronstein that he himself had sought to obtain patents, but had dropped his proceedings upon pay-

ment of $2,700 by Herman after his attorney had become discouraged by Herman's exhibition of certain documentary evidence. Heyman offered testimony that this evidence had been forged, which was, of course, disputed. The court concluded that it "was far from impressed by [Bronstein's] testimony, and [was] not satisfied that he was the inventor of said structure." Heyman did not contest infringement. The court, accordingly, found in favor of Hap.

In the course of its opinion the court, quite properly, referred to the heavy burden that is upon a party contesting a patent by asserting that the applicant was not the inventor, following *The Barbed Wire Patent*, 1892, 143 U. S. 275. Heyman seeks to distinguish this case on several grounds, none of which needs mention except its contention that the rule ought not to apply when there has been fraud. Even if this might be so, it is first necessary to establish the fraud.

Even if, which we need not decide, Hap's witnesses were not always consistent, it is clear that Heyman's were not, and we could not possibly say that the court's findings against it are plainly erroneous.

Heyman also seeks, on this appeal, to have us find that the '384 and '385 patents were anticipated. Not having disputed the issue of validity below, it cannot do so now in order to obtain a reversal. It is not enough that the record may contain evidence on which appellant may piece together a case.[5]

[5]It is true that Heyman's answer alleged invalidity of these patents. However, portions of an answer may of course be waived. In its opinion the court said, "The sole issue with respect to these patents is—was the said Herman the inventor . . ." 196 F. Supp. 447, 452. If this was not the sole issue Heyman should have complained forthwith. *Fleming* v. *Van Der Loo*, D. C. Cir., 1947, 160 F. 2d 906. It is now too late. *Maloney* v. *Brandt*, 7 Cir., 1941, 123 F. 2d 779.

Appendix B—Opinion of United States County of Appeals for the First Circuit

Judgment will be entered vacating paragraphs 1 and 2 of the judgment of the district court and dismissing the complaint with respect to Patent No. 2,470,758, and affirming the balance of the judgment appealed from. Printing costs in this court in proportion to the successful portions of the appeals.

APPENDIX C

Opinion of United States Court of Appeals for the First Circuit on Petition for Rehearing

January 9, 1963.

ALDRICH, *Circuit Judge*. Heyman's petition for rehearing raises one matter that possibly should have been articulated in connection with our vacation of paragraph 1 of the district court's decision. This paragraph was a conclusion that the '738 patent was valid. Our finding of non-infringement made that question presumably moot. "To hold a patent valid if it is not infringed is to decide a hypothetical case." *Altvater* v. *Freeman*, 1943, 319 U. S. 359, 363. *But cf. Hazeley Products Co.* v. *United States Trunk Co.*, 1 Cir., 1958, 259 F. 2d 69. However, for us simply to have dismissed this portion of the appeal as moot would have left the district court's determination of validity outstanding although the rationale of our opinion had undercut its basis. Consequently our minimum obligation was to set the finding aside. This action did not imply that either or both of the claims of the patent were invalid, but left the matter open. Whether we should then go further and pass on the issue of validity for future purposes was perhaps a question of discretion, but one which we resolved in the negative. *Cf. Hale* v. *General Motors Corp.*, 1 Cir., 1945, 147 F. 2d 383, 388. We adhere to that position.

The petition for rehearing is denied.

APPENDIX D

Federal Rules of Civil Procedure

Rule 52.
FINDINGS BY THE COURT

(a) *Effect.* In all actions tried upon the facts without a jury or with an advisory jury, the court shall find the facts specially and state separately its conclusions of law thereon and direct the entry of the appropriate judgment; and in granting or refusing interlocutory injunctions the court shall similarly set forth the findings of fact and conclusions of law which constitute the grounds of its action. Requests for findings are not necessary for purposes of review. Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge of the credibility of the witnesses. The findings of a master, to the extent that the court adopts them, shall be considered as the findings of the court. If an opinion or memorandum of decision is filed, it will be sufficient if the findings of fact and conclusions of law appear therein. Findings of fact and conclusions of law are unnecessary on decisions of motions under Rules 12 or 56 or any other motion except as provided in Rule 41(b). As amended Dec. 27, 1946, eff. March 19, 1948.

APPENDIX E

The Patent Act of 1952, 35 U. S. C. 282

SECTION 282. *Presumption of validity; defenses*

A patent shall be presumed valid. The burden of establishing invalidity of a patent shall rest on a party asserting it.

The following shall be defenses in any action involving the validity or infringement of a patent and shall be pleaded:

(1) Noninfringement, absence of liability for infringement, or enforceability,

(2) Invalidity of the patent or any claim in suit on any ground specified in part II of this title as a condition for patentability,

(3) Invalidity of the patent or any claim in suit for failure to comply with any requirement of section 112 or 251 of this title,

(4) Any other fact or act made a defense by this title.

In actions involving the validity or infringement of a patent the party asserting invalidity or noninfringement shall give notice in the pleadings or otherwise in writing to the adverse party at least thirty days before the trial, of the country, number, date, and name of the patentee of any patent, the title, date, and page numbers of any publication to be relied upon as anticipation of the patent in suit or, except in actions in the United States Court of Claims, as showing the state of the art, and the name and address of any person who may be relied upon as the prior inventor or as having prior knowledge of or as having previously used or offered for sale the invention of the patent in suit. In the absence of such notice proof of the said matters may not be made at the trial except on such terms as the court requires.